The Exhibition of Archaeological Finds of the People's Republic of China is an exhibition of 385 objects which had been made for daily use by people, who lived for over half a million years in the country called China.

All the objects were excavated, or dug up, from the earth, where they had lain buried for centuries. When an archaeological excavation is underway, scientists dig and sweep off layers of soil---sometimes tons--- and carefully \*\*Eak\*\*\* record the position and nature of the objects which emerge, as they are found. We learn from them what sort of objects are found together, in one ancient dwelling place, or one ancient tomb.

In the exhibition we see what sorts of things man in China used in his daily life 600,000 years ago, 400,000 years ago, 6,000 years agok, 5,000 years ago, 4,000 years ago, 3,600 years ago, 3,400 years ago and so on. The last group of objects in the exhibition are from the 14th century, A.D., which is only 600 years ago.

Here is a picture of archaeologists at work, carefully excavating the an ancient site. By carefully and gently sweeping off loose soil, they are discovering the foundation of amxammiantxpatage a neolothic village, a group of houses made in the New Stone Age or 6,000 years ago.

Here they are discovering a tomb carved out of living rock about 2,000

years ago, and all the treasures what were placed in it.

In the exhibition, many of the things the archaeologists found, will splayed in cases, with suitable lighting, so you can see them very clearly.

Introduction to China

map

China is a large and ancient land on the other side of the earth from the America. Itaxismshaped Man has lived there more than half a million years.

To the west the great mountain range of the Himalyas soar into the skies, growing every year. On top of the Winnylinan Himmalayas scientists found fossils of marine life and know that a long time ago the area was under the ocean, and that it was pushed skyward anxa when the land reason of India collided with that of Asia/ That continental bump is still in progress, and that is why the mountains are still growing.

of china

From the Himmalayas flow the major rivers which EXERSE through China,

from west to east, and into the seas. To the north is the Yellow
River, and to the south the world's third longest, the Yangtze River.

Today the Yellow River region is clear and dry, and the Yangtze Valley
hot and humid. Six hundred thousand years, when man roamed the
grasslands of the Yellow River valleys, however, the climate there
was tropical and moist, like that of the Yangtze River today. Scientists
know this from the fossil remains of tropical animals and plants found
underground, in layers that had been occuppied large ago.

# LANTIAN MAN

In 1963 and 1964, archaeologists of the People's Republic of China discovered some very old human remains in a village west of the bend of the Yellow in Mens: Paving.

River, near the modern city of Sian, called Lantian. They found a jawbone and a skull cap. The gebelonged to different beings; but from their shape the scientists knew that they were from females. From these fossils

T'ang polychrome pottery

The skull of this early species of man is very thick, with a sharply receding forehead and fierce, protruding eyebrows. Inxhomedaxm The crantal cavity could hold a brain only about half the size of ours. We know, then, that this early man was not as intelligent as modern man.

He is called Homo Erectus which means Upright Man, as he stondmonchis walked erect and did not lope, using his arms like an ape. He is not yet Homo Sapiens or Wise Man or Thinking man as modern man is called. knowledgeable

Lantian Man lived some 600,000 years ago, in the tall grasslands and at the edge of the forests, eating berries, nuts, digging for grubs and hunting small animals. A From quartz and quartzite he made crude stone tools. He by Striking off a chip or flake, making a tool, that may have a point at one end and/or some sharp edges to it.

We do not know much about the social life/and his habits because that the human fossils and the tools/were found had been washed by waters and rolled away from their original situation. When archaeologists find more Lantian remains and tools, grouped in such a way as to suggest that they had not been disturbed, we will know much more about Lantian Manne

More than fifty years ago, scientists had found in a cave site called in Hopei Province

Chou-k'ou-tien near Peking, a species of Homo Erectus that is about to 5000,00

400,000/years old and named him Peking Man. We know a good deal more undistabled, about Peking Man because his bones and artifacts were found in situ or in the places where they had been.

Here is a skull of a Peking Man unearthed in 1966. ALtogether some 40 individuals were found here. He still has a rea rather low forehead and protruding eyebrow ridge. But his brain capacity is now two-thirds that of modern man or Homo Sapiens. See how his cranium (F13) is larger than that of Lantian Man's (1).

Peking Man discovered the use of fire Fire makes an enormous difference to our lives. Without fire we have no heat at night. Without fire we cannot cook our food. Without fire we can not scare animals away. The cave-dwellers of Chou-k'ou-tien had all three advantages which Lantian man did not have. We know from charred deer bones that they loved to have venison barbeques. We also know from the shape of the cranium that Peking Man had learned to speak. Sex In two hundred thousand years man made great progress: he had invented learned to use fire and speech. Here is a piece of burnté earth (CAT 11) weed by Peking Man Cave site.

#### YANGSHAO CULTURE

Repro
Pan po
(Cohen book)

F13

From 1954 to 1957 archaeologists excavated some 30,000 xxxx square feet——part of an area of 150,000 square feet——that had been inhabited by early farmers of China in Shensi Province, near Sian, at a site called Panpo. This is the Neolithic Age or New Stone Age, where life is greatly enchanced by the discovery of agriculture.

This site is six thousand years old and the people who lived here learned new to do many things :

\*They learned to farm. Theyxplandedxmemdmxnfmgmammxm They collected seeds from wild grains like millet, and planted them in cultivated fields. In this manner they domesticated wild grains.

\*They domesticated wild animals for eating. The earliest animals penned and for the table paper famous paper famous up, were pigs and dogs. They learned to breed the animals, and in time these became tame, or domesticated, animals.

in the photo \* For hunting they made arrows and harpoons.

\*They learned to weave . Collecting the sissle plant they stripped it of all the pulp, and soaked it and beat it until only the fibers remained. These they twisted into threads, which were then woven into fabric. Panpo farmers weaved both a straight weave and a herringbone weave. They made toothed stone whorls as spindles. Here is how one works.

1,4 In similar fashion they made baskets.

25 bottoms We know this from the fabric and basket-impressions found on Panpo pottery.

27.28, \*Panpo farmers made pottery vessels. East of their village archaeologists

29 in found their kiln site where fire was regulated and controlled, to produce

one plate a low-fired earthenware.

Sign Rango \*They buried their dead in a communal cemetary north of the village.

bullist Old Stone Age man had simply buried his dead underfoot. New Stone Age

photo man developed the practice of burial with a sort of ceremony. The

6

dead were carried across the protective ditch surrounding the village, north to the public cemetary, there to be suried with the head pointing to the northwest, the body straight, facting up, and accompanied some times by pottery vessels filled with grains.

We know from the way the village was laid out that not only was their way of life much more advanced than that of Peking Man, but that some sort of social organization must have been responsible for the tri-partite dixision zoning of village dwelling, cemetary and, to the east, the "industirial site" of the kilns.

F14 model

thin the great ditch, eighteen feet deep and eighteen feet wide, which encircled the village, archaeologists have found foundations of 200 houses, some round and some square. Here is a reconstruction of a neolithic home. (Chang Kuang-chih) There is a thatched roof, supported by four wooden pillars. The pillars are stabilized at the bottom each in a solid stone base. This method of using round pillar supports made of stone continues throughout most of Chinese history.

sian panpo drawing

It seems that at this period the farmers shared the harvest and stored their grains in community-shared storage vats. This minimum man man and they shared their harvest, and they shared the cemetary.

in one photo

the adze and the spade. How precisely each is made; xxxxx the edges are sharpened and the surface is polished. These tools are not only useful, they are very beautiful too.

of kiln Toupo Let us look at the pottery. Here is a drawing of a kiln as it was excavated in Panpo. A wood fire heated the kiln, and the heat was conducted up knxthmexm through the flu to the firing chamber where the pottery vessels are stacked for firing. The fire would be tended over many long hours.

The TXXMAKE earthenware pots XMENXAXXXXMXXE found in Panpo are made by the coil method. Clay is rolled into a long rope and coiled. First the bottom is formed, and gradually the coils are laid one above the other to create the rising wall of the pot. When it is done, the wall is smoothed down by repeated pressing with the fingers, and nimbed then it is polished for that glossy smoothness.

Panpo potters made two types of decorations. For the cooking pots and the less fancy ones they incised the surface with impressions of fingernails, with stippling marks made with a sharp wooden or bone took; with impressions of textile or basketry, or, in the very earliest times, by rolling a rope-covered stick over the belly of the pot.

The fancy ware is much smoother of surface and is painted with a dark brown designs. The paintings are usually made of straight lines.

There are are geometric designs such as triangles and lines, there are fish-like designs made up of traingles and lines, and masks with net-like designs, all done in a symmetrical fashion.

f 19 or Sian Panp Archaeologists have found on these 6,000 year-old pottery some kind of rudimentary markings which may be a primitive way of keeping record; of representation events. Enumerophese the second second records developed a knot-tying system. Panpo farmers may have used this painting system.

Let us look at the potters at work. Here is a drawing of a kiln found excavated in Panpo

## KANSU PAINTED POTTERY

To the northwest of China in the Province of Kansu near the upper reaches of the Yellow River, archaeologists disvovered other neolithic sites which produced an earthenware pottery that is very different in appearance from those found at Panpo in the middle reaches of the Yellow River.

The people who made these pots lived about two thousand years later (onsiderally) than those from Panpo, and their skill in pottery is more advanced. Though still made by the coil method, the Kansu pottery usually has much thinner and more even walls. The decoration is painted on with hematite powder and manganese oxide. The lines are freely swell from thin to thick, and curve over the belly of the pot like enormous waves whimhmanemdashimgmanism spun off from a spinning disc.inxkhexmiddiex Some veesels contrast black and red in the decoration.

Even the shape of the vessels swell and shrink with a verve and dynamism that is remarkable. It is very difficult to coil a pot in this manner, enlarging the belly so much and then closing the mouth like this enew (37)

Even in burials the people of Kansu loved circular movements. They carried their dead some two miles onto a mountain top where they are lain to rest among the sands, blown by winds and dried by the sun.

to enable

Perhaps the survivors wished/the spirits of the dead to look around, all around at the panoramic view which one can have only on top of a

34

mountain, and not below. The dead are laid in a curled position and on their sides. Funerary vessles are arranged in a circle around the dead. Everything in the Kansu site seems filled with a turning, spinning motion.

## CH'ING-LIEN-KANG CH'ING-LIEN-KANG

In 1951, Chinese archaeologists first came upon yet another neolithic Mostly active culture which had not come to light before. In the lower reaches of the Yangtze and Huai Rivers, in a town called Ching-lien-kang in Kiangsu Province, these early farmers lived around five thousand years ago.

## Theyxmaniantedmenopsminedudingxnine

Here archaeologists found the earliest remains of rice in China. Farmers at Ching-lien-kang seem to be among the first to cultivate, to domesticate the rice plant, and rice has since become the staple food for southern China.

These eastern farmers also raised pigs, dogs, sheep, cattle and other domestic animals. Their tables must have been full of a great variety of foods including grains, vegetables and various meats and fishes.

Here is a stone knife found at Ch'ing-lien-kang. It has seven holes, all evenly spaced. They are made with a stone cone which is held upright and twilled between the palms of the hand. A Sand is added for abrasive. You see the holes are narrower in the middle, because of the cone-shaped "drill". Half-way through, the blade is turned overxime and the drilling

CK C Slide

is continued at the other side. You can imagine that if the tool/amaker was not careful, he might not align the holes properly and the drill would REMERED to come out at the wrong spots and the KEE two sides of the hole would not meet.

See also how this knife is polished. It has a sharp edge, a blunt edge, and a very shiny surface. Today if an artist made a thing lime like this we would consider it a great ""work of art". But five thousand years ago it was just a knife, just one of the many tools which man needed to make his living.

### LUNGSHAN CULTURE

Neolithic sites, or places where early farmers lived, have been found over a wide area in China. We have seen one and the middle of the Yellow RIVER AT Panpo, one in the northwest Kansu corridor, one a in the lower reaches of the Yangtze near the eastern seas whore at Ch'ing-lien-kang, and now we look at a relatively late culture found in the lower coastal reaches of the Yellow River, in the Frovince of Shantung.

### Anchanohogistaxmxdomndxhhatmkhaxhungahanxnuhture

Archaeologists named the culture of this people the Lungshan Culture, after the first site, Lungshan, where their remains were found.

The Lungshan punkturum is one of the latest cultures, being active between 2,500 and two thousand B.C. Thenryntheryxshowsxaxgreathxixadwansexth their pottery is basically of three kinds; red, white and black, and their pottery-making technique shows a great advance. The

Lungshan potters had invented the potter's wheel!

show when

even walls, and walls of extraordinary thinness. Lungshan potters did not like to decorate their pots with painting. They felt differently about ornamentation and built their pots in very lively shapes and covered them with appliquee decoration. This is another new development in the art of pottery-making in CHina.

Here is a white pottery tripod with hollow legs. It is used for boiling water. You can imagine that then he vessel is put into therefirst fire and water comes all the way down near the fire through the legs; that it would boil very soon. And so it does See how the pot stands upright in a very noble manner, proud and erect, and is harnessed with appliqueed harthen bands and decorated with little round discs. See also how Its handle is playing a game, pretending to look like the handle of a basket!

rotter 55,56,58 in one place

53

In their black pottery the Lungshan reopile expressed a special degree of care. Mosit of the black pottery is turned on the potter's wheel. That means that a specialist had to make it. The potter's wheel is difficult to use for a layman, whereas a layman can make a coiled pot easily.

Also see how very thin the shells of the black pottery tends to be. Almost as thin as an eggshell. Above all, most of the black pottery ware is done in an unusual shape. They look more like things you would have on an altar, rather than ordinary pots used in the home.

From this archaeologists are able to suggest that the Lungshan culture had a specialization in crafts are that is, that potters who used the potter's wheel were specialists at their craft; and that Lungshan of beginning people must have had some sort of beginning of religious awareness, caustic them to use ritualistic vessels in ceremonies concerned with the supernatura

THE BRONZE AGE : SHANG

Meir

The chinese invented a writing system some 3,500 years ago. There is therefore a written history dating back all these years. But until historical accounts are confirmed, or proven, by archaeological excavations, historians tend to keep their minds open about the possibility that the written account, may have been fictitious or exaggerated.

The mam Two ancient dynasties are recorded in historical annals which had been thought to be fictitious, or legendary or mythical, for a long time. They are the Hsia Dynasty and the Shang Dynasty. In the 1920s archaeologists excavated the site of the last capital of the Shang Dynasty and suddenly people believed that indeed there once was such a period, which ranged about the 19th century to the 11th century B.C.

In 1953 Chinese archaeologists unearthed yet an earlier capital of the Shang dynasty, in the town called Chengchow in the province of Honan, and there they found a more primitive type of bronze vessels which prove that the technique of bronze-casting evolved in China, independently of Western peoples. The site of Chengchou, believed to be the next-to-last capital as Shang called Ao, was active between the 16th and the 11th centuries B.C.

Here archaeologists found not only foundations of houses, but discovered ceramic workshops, bronze foundations of ancient walls, made in the rammed earth method. That is when mud is pounded very hard to a thinness of less than an inch, and another layer ix of mud is added, and pounded thin, and then topped by another layer. In this way, adding aayer upon

layer of

F22

earth, a wall can be built texpressex axxiv around a city, with a base of seventy-five feet, rising some forty-five to fifty feet.

This is what remains of a 3,600 year-old wall made in Changchow.

At the site of Chengehou, Around the 16th century B.C. bronze foundries were the monopoly of the ruling class. Here we see a society that is sratified, divided between the rulling or upper class, and the serving farmers or lower class. Amazingly, the farmers continued to work with primitive tools, made of wood, stone or shell in the most part, which primitive tools, made of wood, stone or shell in the most part, which was a shirth the rulers have entered the bronze age, casting their weapons and vessels in bronze.

The regularly planted crops in this time were different types of millet, a smallish gr cereal typical of northern China even today, wheat and rice. For the advanced art of weaving, hemp was also cultivated, as well as the mulberry tree.

Hemp makes a ix cloth like linen. Mulberry is used to feed silk worms.

The domestication and control of silkworms, raised to produce silk for Sericulture:

human use, is called sericulture. The Chinese invention sericulture.

The first step in the domestication to silkworms is to collect the cocoons which are mostly pure white, sometimes a bright yellow or light blue.

When the moths emerge from the cocoons they will immediately mate and lay hundreds of eggs, and die. The eggs are saved, and put away in a cool, dark place.

Next Spring when the mulberry leaves and tiny, the eggs are brought out and exposed to warmth. In time tiny little black lines are seen to crawl about. These are baby silkworms. They are fed the ten tender mulberry leaves and kept in flat basketwork trays. They must be constantly supplied with mulberry leaves; and the dried out leaves are the discarded. This way they won't crawl off the tray but remain right there, to eat.

In a couple of weeks the silkworms are white, pudgy little things which move about swiftly on multiple tiny furry feet. Their eating now makes a noise and one can hear from a distance whether a certain house has silkworms inside. The mulberry leaves are now larger too, and tougher, and it is the job of the sericulturist to see to it that the silkworms are always given the size of leaves that is best suited to their size. He should control their hatching so that they come out just at the right time in Spring, not too early so they starve, and not too late so that they are unable to eat the leaves too tough for their small mouths.

When they are fully grown as worms they are knamanizament very fat and almost wobble as they move about. Their whiteness now has a shine to it, as though they are about to become transparent. This is just before they spin the cocoon. They must hide inside their cocoon for that mysterious transformation from a worm to a butterfly or moth, a process called metamorphosis, or shapemenangings form-changing.

At this stage the silk worms are given little teepee-like straw stands. They want to fasten their cocoons onto several limbs of a tree. The straw stands imitate this environment, this feeling, and the silkworms/xxxxxx crawl onto them and begin to spin silk out of their mouths, turning their heads in the air in a gently rotation, and In about a day they are enitrely covered each in its xxxxx cocoon.

TO make silk, the cocoons are sorted and put into boiling water. This kills the worm-moth inside and loosens the silk filaments. Carefully the filament is pulled, sometimes one can wind off several thousand feet of silk filament out of one cocoon.

hatch out for the next season.

But the new industry for the Shang age is that of bronze casting. Huge bronze vessels were used as symbols of state, to symbolize a royal palace or the highest authority. A famous one, called the <a href="mailto:ssu-wu-mu">ssu-wu-mu</a>
ting (a ting is a round or square bowl with three or four legs), stands some four feet high and weighs more than 1,700 pounds. Bronze vessels found at Chengchow have been analysed in the laboratories and reveal the following composition: 91.29% copper, 7.1% tin, and 1.12% lead. It is mostly copper, but with the addition of a small proportion of tin and a tiny trace of lead, bronze same stronger than copper. In the beginning, in the Chengchow period, roughly from the l6th century B.C., bronze vessels were cast with a relatively thin shell. They are cruder and more fragile than those cast some centuries later at Anyang, north of the Yellow River, when the last capital of Shang, Hsiao-t'un,

To cast bronze vessels a very high heat is needed. Shang craftsmen developed and mode of heat control so that they rould maintain a temperature of 1,250 degrees centigrade, or 28xx 2,300 to 2,400 degrees Farenheit, for long periods. This enabled them also to produce high-fired stoneware, or early porcelain. (Porcelain was not in use in Europe till the 17th century AD, a mere 200 years ago.) In Shang China the potters had already developed a method of cleaning the clay to produce a white body, with even a simple glaze, to make it glossy and hard.

Bronze vessels were made from pottery molds that had in turn been made from pottery models. First an exact model of the bronze vessel made in pottery and fired till hard. Then clay molds are taken of the inside and the outside of the model. Because of the shape, sometimes the molds the molds for some objects had to be made in sections

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be slided into sections to fit around the model, and for casy removal. In the case of complicated shapes which curve in and out, the model itself has to be in two or more parts. That is why the Chinese system of bronze-casting is called the "piece-mold" method. Here is a picture of the molds for two bronze vessels. You see the thin grooves outlining the shape of the vessels, and they are shown upside-down. The piece-molds are secured in place and bronxexix molten bronze is poured into the grooves from openings on top.

Other beautiful artifacts from the Shang period include intricately carved jade pieces, and stone/sculptures of animals. These are done usually in not too realistic a way, in a more stylized manner, to express something of the quality, something of the nature of the thing carvgs: carved. The bird, for example, looks more like "flight" than feathers, the bear looks more like "strength" and "force" than fur, and so on.

Archaeologists have discovered another interesting fact about the Shang people. x their craft technique advanced, and crafts became independent of farming. In the neolithic period every stone object was a tool to be used in the field or kitchen. Every pottery vessel too. There was no time for making too many things for mere adornment or decoration. SHang times this changed and there developed a separation of the workshops from the whieat fields, and we see the birth of cities.

Inside the cities lived the rulers and the craftsmen, and the farmers lived near the fields, outside the cities. It seems too that at this time there began to develop a sort of commerce between different cities, and products were traded from one to another.

When they died, the rulers were placed in coffins within wooden sarcophagus and accompanied by masses of treasuresx such as carved bone, ivory and jade, pronze and pottery vessels. Furthermore many human beings were sacrificed in their tombs as well, so that their spirits could

Drwng:

burial

continue to serve the xx spirit of the deceased ruler, in the next world.

The farmers who labored in the fiels outside the cities were simply buried in rubbish pits when they died, like the cattle, without burial accessories.

In time the Chinese discontinued this sort of burial, and invented a system of "substitution burial" where human victims were replaced by effigies, or models or dolls, made of pottery or wood. Thus a millenium later tombs contained bronze horses and chariots and bronze riders and charioteers, or such beings made of pottery or wood, instead of actual horses and men.

By the 16th century B.C. the Chinese had also perfected the techniques of wine-fermentation. An elaborate wine service is developed and many vessels of diverse shapes created for the various functions associated with the heating, the serving and the drinking of wine. The same can be said for foods. There are the five grains, the fruits and vegetables, the fish, shellfish and turtles, the different kinds of birds and animals, the sauces and the pickles which must all be served properly. Shang bronze vessels already show great diversity in this respect

Here is a wine vessels, (70), decorated with three groups of animal-mask designs on the belly. On the neck there are three designs of either frog or tortoise, which could have been an early way of writing a clan name. These are among the earlist "writings" on bronze so far discovered.

Here is a bronze tripod ting from the 16th century BC. Like Lungshan neolithic pottery it has hollow legs, to speed up cooking time. Even on this cooking vessel we find decoration of animal masks on the belly.

Here is a handsome dish, or p'an from Chengchow, with a band of dragons

F84

72

crawling on the belly from left to right. Sometimes these dragons are made to face each other, called confronted or confronting animals, and the effect is that of an animal masking staring out, at us. 7

- F20 Between 1953 and today, many sites have been found in Chængchow. Here is a map of them.
- Here is the foundation of an early SHang building. Notice the holes for the pillars. In Shang times they continued to have round and oblong houses. Newer is a long house. Houses of rulers were all built over a foundation rising above the ground, whereas those of the farmers living outside Shang cities continued to live in houses sunk below previously. ground level, somewhat like those at Panpo three thousand years xxxxx
- F23 This is the remains of a bronze foundry at Chengchow. Archaeologists have found crwcibles for refining ore, and even bits of charcoal which had been used to produce the high temperatures requirem needed for bronze-casting.
  - From the 14th century B.C. to the 11th, the Shang made their capital north of the Yellow River near the present-day town of Anyang. This represents the golden age of Shang civilization, where the bronze vessels are nade with a perfect balance between form and decoration, where the two are thoroughly united.
- In 1950, archaeologists unearthed an enormous tomb which of a member of the Shang ruling class, in the village called Wu-kuan. The tomb was nearly thirty feet underground, and a occupied more than a thousand square feet, running in long undergroudn shafts 135 feet from north to south and 36 feet from east to west. In this tomb they found the skeletons of 79 burial victims, perhaps the childless wives of the dead man and certainly a great number of prisoners of war. They also found bringe and pottery vessels, gold, jade and shell objects, and even

Is that copper Aust?

bits of silk which had survived, as it had been soaked in cuprous oxide.

In Anyang, archaeologists also found a great number of inscribed bones, and know that Early Chinese writing was scratched onto hard, flat surfaces like the shoulder blade of oxen or the plattron or belly plate of tortoises. Chinese writing is the oldest continually practiced form of writing in the world. The earliest examples found so far date from the Anyang period, which is about the 14th century B.C., and they continue to this day is single squares of equal xixe unit size each words character denoting a word which, in the spoken language, is uttered in one syllable. In time the spoken word, and in space the written word, each occupies the same unit, one. Chinese is called a monosyllabic language, as it is made of words each having only one syllable. English has both momenous long and short words, "horse" has one syllable, but hippoppotamus "has five.

All the written languages in the world except Chinese are phonetic today. Each language has devised a wheman system of visual symbols where which spell out the sound of words. These are called phonetic symbols. Phone means sound. Phonetic writing, as English and all languages except Chinese are, represents a two-step operation from idea to writing. First the idea is uttered by the mouth, producing a sound. Income with the writing system is developed to record visually, the sound of the language, not the idea iderectly.

Chinese is a direct recording of the idea into a visual symbol, without depending on the sound. So Chinese writing can be used by peoples all over the world, regardless of the language they speak. Indeed the Japanese who speak a very complex, inflected and polysyllabic language, adopted Chinese as their writing system in the 7th century A.D. Then

around the 10th and 11th centuries they evolved a phonetic system to denote primarily the words for which there are no Chinese equivalents and the grammatical parts of words which do not exist in Chinese.

Here is how the earliest writing found so far looks. It is carved on F31 &32 an ox shoulder blade found in Anyang in 1971. Written on two lines, the 18-character message records a sacrificial offering to the ancestors.

F30

From the many known inscribed bones found, as in this excavation, Scientists in China have identified more than 5,000 different characters used in Chinese writing of farily developed forms. From the 14th century B.C. to this day Chinese writing has undergone two major reformations and simplifications, once in 221 B.C. when the Great Unifier, the first Emperor of China, Ch'in Shih-huang-ti unified the empire and ordered a standardization of all written scripts so people can read each other from all corners of the empire, and once since the founding of the Chinese People's Republic in 1949, where characters that take too long to write were simplified, so that more people can write more quickly.

(Insert, addition to end of 2nd para.) On the reverse side of whe written message, rows of deep, round dents were drilled. These were heated with a hot rod until cracks appeared on the other side, leading to the writing. As the writing often consisted of questions to the ancestors in positive or negative form, the direction of the cracks was taken to be the reply by the ancestors. FOr example, a message might say, "King Cheng enquires. Tomorrow an expedition against the enemy is to begin. Will 100 chariots be enough?" Next to this question, the negative form is also inscribed, "King Cheng enquires. enemy to begin.

Tomorrow the expedition against the ENEX is LENNERHERX Will 100 chariots not be enough?" ANA when the reverse side is heated and the crack forms, it will lead to one of the two possibilities. Shang rulers were guided! by such divination.

Since the founding of the People's Republic of China in 1949, many more
Shang sites have been found, besides Anyang. Some of the later cities
from about the 12th century B.C. were in such distant places as Anhweightheets
Hunan in the south, Kiangsi toward the center and Liaoning to the northeast, as well as other places. Bronze vessels uneartheet in these
distant places represent what art historians call regional styles.

Since Pieces made in the capital are considered central, mainstream or
metropolitan style, and those in outlying regions/show different
motifs and expressions sometimes.

- Some of the pieces found in outlying areas dating from the 12th century BC are curiously animal-shaped. Here is a wine vessel which looks like an owl, and this one which looks like a swimming dragon. Both of these were found in Shansi. Often the decorations on these vessels show animal masks, and dragon and phoenix designs. One very startling piece was found in Hunan provice in 1959 and shows a very real-looking face of a southerner.
  - But they continued to make more "regular-looking" bronzexxxxxx vessels too. Here is a very impressive wine vessel with the confronted dragons which make up the mask design. On the shoulder are three sacrificial ox heads. This was found in 1957 in Anhwei. The motifs are raised above the surface of the vessel, and further incised with line designs. Flush with the surface there are what is called "thunder and cloud" patterns, where spirals are incised, sometimes squared, sometimes triangular and sometimes rounded.

We see from all these interesting vessels that the Chinese craftsmen are fond of symmetry and balance.

### THE CHOU DYNASTY

99

In the 11th century B.C. the rulers of the Shang dynasty were defeated by peoples who rose from the western loess plateau along the Wei River. The new dynasty was named Chou. The kings of Chou gave titles to their friends and subordinates, bequeathing them with land and power. By this time there were many towns and cities, and the major towns each had their own foundries for casting bronze weapons and ritual vessels for the nobility of the area.

- On bronze vessels cast in this period we find records of military

  77 campaigns important decrees by the king, and even such an event

  \*\*\* as when a nobleman called Tung Chung awarded four families of

  \*\*slaves to a man named Chi Fu. Such a vessel (97) was found in

  1960 at a site in Fufeng in Shensi province. This site had been the

  near the capital of the early, or Western Chou dynasty.
  - But In different areas people were casting bronze vessels with often different designs. Other 11th century B.C. styles include this food vessel from Liaoning province in the northeast, with its war-like bosses covering the body. It has an extuberant look to it, an extroverted feeling which is new to the age.
- Similarly this covered food vessel from Shansi province, with its pair of intertwined phoenixes, is full of a lively, dynamic feeling. Even though many of the vessels cast at this time have inscriptions inside; which tell us they were cast in honor of the ancestors, they look different from the awesome vessels cast by peoples of Shang.

The period from 770 to 475 B.C. are known as the SPring and Autumn It is also known as Eastern Chou, as the enfeebled king moved his capital Period. Nominally it is still the Chou dynasty, but the ruling house, the king of Chou were rather weak and the no longer held the power.

Instead, the men who had been given titles to oversee different regions of China were becoming increasingly powerful, and increasingly independent. This meant that when the King of Chou needed help from his vassals, he could not be sure he would get it. Each Marquis or Lord was busy developing his own area of influence and gradually developed it into an independent State.

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farmers stopped
came to be made more and more out of iron, so they could stop working

with tools made of bone or stone. xwith meant meant maning x tools and knives

was

make better production. They learned to plough with oxen, and x manx

began to cultivate far wider areas than before. Thus Productivity

increased, and gradually there areas private ownership of land arose.

In 594 B.C. she STATE OF Lu to the northeast began to levy taxes on private land. From this we know that private ownership of land must have already been a practice for some time, a laws are formulated usually a long period after their need is felt.

107-115

From the end of this period we have a set of bronze bells, nine in all, eastern excavated in 1955 in the \*\*EXEX\*\* province of Anhwei. They are to be suspended from \*\*k\*\* a rack and struck with a little hammer. Their scale is fairly similar to ours, except that the fourth note, or the fa, is missing. It is possible that the fa was eliminated early on because of the tritonus with \*\*si.\*\* The inscriptions on the bells, some as long as 82 characters, tell of the story of the Marquis of Tsai who had to flee to Anhwei when his domain was attacked by the Marquis of Ch'u from the large southern State of Ch'u. We learn much of history from

that

such inscriptions. It is clear /warfare between different feudataries had already begun. And the next period is called the Period of the Warring States.

From 475 to 221 B.C., the Period of the Warring States witnessed continual battle among seven major vassal states which had now ceased to pay even lip service to the King of Chou. Each wished to conquer all the others in order to establish a new , unified empire.

Not only were iron tools widely used and productivity constantly on the rise, but khexideaxed cities and urban life became highly developed. Since the founding of the People's Republic, archaeologists have excavated important city sites, remains of capitals of these various warring states and learned a great deal about the life and practice of those times.

For example, take the capital of the state of Yen to the northeast.

8,300 yards

Excavations have revealed a foundation over 24,900 feet from east to

4,000 yards

west, and some 12,000 feet north to south. Like Paris, the city

was divided into an eastern and Western sector, on two sides of a river

which coarsed through the central part of the city, running from south

to north. The eastern part was the center of activities. It included

the palace compound, workshops for iron-casting and pottery, as well

as the residential district. Archaeologists found many tools, building

materials, utensils for daily life and great quantities of coins and

bronze weapons.

- that the traditional thatch had long been replaced by pottery tiles.
  - This large bronze knocker, nearly one and half feet long, must have been part of the Yen palace. It is enormous in size and most intricately made, showing interlaced serpents and, perched at the center of the mask on top, an equisitely fashioned phoenix.

We also know that iron-casting workshops were government or state-owned. Some of the iron molds discovered in 1953 in Hopei province, have inscriptions inside them such as "Right Granary", the name of the agricultural official in charge of the granaries of Yen.

The new art of silver and gold inlay reached a high peak during the Warring States Period. From the south, excavations in the ancient state of Ch'u unearthed this stunning bronze sword. The guard is inlaid with turquoise and the blade is covered with silver lozenge design.

From the province of Shansi archaeologists found this very beautiful covered vegetable dish. Several bands of dragons are inlaid into the surface. Some of the dragons are crawling on their bellies, others alternately do headstands or perch up on their tails, and the bottom band shows them crawling to the right but turning kas their heads around as if to scratch their backs.

Inlay techniques of this time required immense skill, as Shallow grooves would be cut on the surface f of the bronze vessels, and then threads of gold or silver must be set within the grooves, and then polished with they flush with the surface.

#### CH'IN DYNASTY

In 221 B.C., the King of the strong of Ch'in on the western plateau succeeded in defeating all the other warring states. It was during the 26th year of his rule as King of Ch'in and he was jubilant. Now he had unifed all under heaven, and declared himself to be the First Emperor of a unified Ch'in EMpire. From north to south, from east to west, he established a network of highways to improve communication within the new empire. To the north, he connected all the protective walls the various states had built against the makrauding nomads, and this.

Great Wall

133

became known as the Great Wall of China, or the eighth wonder of the world. At one time at was some 3,000 miles long. Now it still stands, though nonly half as long.

Ch'in SHih-huang-ti, as he is known to the Chinese, set out to standardize all the weights and measure, all the laws, and the writing single, systems, so that throughout the empire there would be adunified all carts and system prevailing. He even ordered the axles of Achariots to be built the role in the roads would be the same for all the role the same length, so that there would be ruts of the same size

vehicals twouldant was to vehicals twouldant was to like tracks. This 1 speed up travelling on dirt roads which become like tracks.

Here is a pottery measure discovered in 1963 in a far-flung county to the east in Shantung province. It comes from the first year of Ch'in Shih-huang-ti's rule as Emperor of China. Measures such as this were distributed all over the empire so that all peoples would now adopt a single, standard measure, so that a peck in the east is of the same volume as a peck in the west, north or south.

When the First Emperor died, he was put into a bronze coffin, and laid in a vast pool of mercury, and his tomb protected by arrow-firing booby traps. We know this from the historical records written about a hundred years later by the greatest and earliest of Chinese historians, Ssu-ma Ch'ien. Although the tomb has not been excavated yet, we know where it is. Here is a picture of the mausoleum, showing the artificial mountain of earth which had been put over the tomb. And here is one of the four pottery figures found squatting on the periphery of the tomb. The figure is one of the early examples of pottery sculpture found in China. It is nearly two feet tall, and the head and hands are separately

F59

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made.

#### HAN

map of 100BE.

One of the greatest and most exciting Empire periods in China was that of the Han Dynasty, which began with the overthrow of the Ch'in Dynasty in 206 B.C. and went on for some four hundred years till 220 A.D.

Han peoples continued to develop techniques water-conservation

begun in the Warring States period some two centuries earlier. This

than before. The use of the absorption

also spread. It was now used

now in almost all additional activities, and was smelted in furnaces which

used coal.

The Han people also brought silk weaving to a very high peak. Nery fine embroidery from this period has been found sof a quality that is almost impossible to duplicate today. A Threads of different colors were embroidered into patterns of great elegance. Some silk garments

measuring six feet by four feet---a very large dress:-- weighs around one and a half ounces! This bover two thousand years before the invention of nylons in the west. People to the west of China including Afghanistan, PErsia and even as far as Rome, bought Chinese silks, and trade between China and the west flourished.

Some major inventions by the China by the compass include paper, a primitive and seismograph to detect earthquakes, the compass. Astronomers began to record sun spots in 28 B.C. (Galilleo was the first to record them pin the West, in 1615 A.D.) and in the first century A.D. they could predict solar and lunar eclipses.

The national boundaries of Han China far exceeded those of the Ch'in.

They stretched way out into Central Asia, near the kingdom of Ferghana where the coveted "blood-sweating horses" were bred. Emperor Wu-ti, or the Martial Emperor who reigned from 140 to 87 B.C. had sent his emissary Chang Ch'ien to Central Asia forx on a dimplomatic mission. Ten years later Chang returned to tell the Son of Heaven about the fabulous steeds of Ferghana

with their long, swift legs and short manes and docked tails. Truly the bodily, earth-bound form of the celestial dragon, they thought. As the dragon was the bringer of rain, the symbol of the east and eventually the symbol of the throne itself, it was imperative to capture these magnificent horses. Emperor Wussecond campagin into Central Asia procured these horses for China.

Emperor Wu is recorded to have been buried in a jade suit carved with dragons and phoenixes. This is reported by the astute and admirable historian Ssu-ma Ch'ian. But Emperor Wu's tomb has not yet been found. However, in 1968, the People's Liberation Army on a patrol over a hill called Man-ch'; eng near Peking, discovered the tomb of one of Wu-ti's elder brothers, the Prince of Chung-shan, and, next to it, the equally carvernous tomb for his wife, the Princess Tou-wan.

Each of the royal occupants of these cave tombs was in a shroud made of

jade. When the archaeologists found these jade-Vsuits, they were delighted. For until that memorable day in 1968 historians had wondered what was meant by the cryptic statement in historical annals to the effect that "royal personages of the Han period were encased in jade."

Jade is a precious stone, like diamonds in the west, which is imported from thousands of miles away, and very expensive. It was difficult to conceive a dead body encased in a jadde stone. But & when the scientists entered the burial chamber of Liu Sheng, the Prince of Chung-shan and that of his wife, Tou Wan, they saw how a corpse could be encased in jade.

Here is the way the archaeologists saw the famous jade burial suit when they entered the burial chamber.xxxx The body the jade was supposed to preserve had long since decayed and the jade suit had collapsed on top of it, breaking the gold threads which had linked all the thousands of pieces of jade together.

The archaeologists carefully recorded the positions of all the loose jade pieces, and photographed every inch. Now the problem was, how to put the jade shroud together again, as it was two thousand years ago. Some areas were still fairly well connected and others had separated as the gold threads had been broken. The archaeologists threaded together what could be, and encased the more collapsed sections in plaster of P%Aris, so that when they werexxxx brought back to the laboratory in Peking their relative positions would be the same.

Here is a detail of the shroud from close up. The jade had been formed into pieces of different sizes to fit the contour of the body. Painstakingly the ancient jade-smiths made squares, oblongs, lozenges and \*\*trai\* triangles.

The connecting thread was of twelve strands of pure gold. To connect the suit of the Prince who was considerably larger, because of a protruding stomach, almost two pounds of gold had been used. For the shroud of the Princess almost a pound and a half. The knots were tied in nine different ways. Ancient people knew many different ways of tying knots. XTHEXAL

The astonishing discovery of the two royal tombs at Man-ch'eng was an archeological triumph. NEXXEMIXX THE world now knew how Han royalty was encased in jade. Also, the quantity, size and variety of other burial objects found the in the tombs took one's breath away. In the tomb of the Prince, for example, year there were lateral tunnels dug to the north and south, containing some six chariots and the skeletons of sixteen horses and eleven dogs (?), and in the tunnel dug northward archaeologists found a great number of food and wine vessels which had originally been filled to the brim.

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We have learned from the excavations of these two royal tombs that Han people took to the next world not only funerary objects but also htings they

100 HAN Lamp

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of road

had favoured in their daily lives. Let us look at some of them.

The Lady Tou Wan took with her a large bronze lamp which had been given her by her grandmother, the Empress Dowager whose palace insignia is carved inside the lamp, "Falace of Eternal Faith." It is a stunning piece of Han sculpture as well as ingenuity. Look at the beautiful face. Like the pottery figure of a kneeling woman found outside the tomb of Ch'in Shihhuang-ti which had been made fover than a hundred years earlier, this one also has a detachable head which had been separately cast. The expression is both quiet, meek and noble. It is typical of this time that artists and artisans combine a sense of reality, from modeling from close observation of nature, and a sense of expressive power which is the spirit they gt put into the piece. In this case we see not only a woman, but we feel also that it is a well brought up, refined and yet humble woman. These feelings we get from the exx expression the artist has put into this figure.

The lamp part shows great ingenuity. To prevent the smoke from sooting silken garments, a chimney is devised to funnel the smoke down into the hollow of the body. In this case, the arm of the maid is used to funnel the smoke. On the side of the lamp there is a lever whish opens and closes the door that slides in a groove. In this way Han people could adjust the intensity, and the direction, of their light. They could have much or little light hadirected to the right or left.

This is the lamp made on the same principle, found in the tomb of the Prince.

Here is another lamp. This time in the shape of a kneeling ram, which was also down found in the tomb of the Prince. When not in use it appears to be a scumpture.

FLO ANDEXYMM and one could not have guessed that it was a lamp. But when the back is raised on a hinge and rests against the ram's head, it becomes a lamp. Oil is put into the back and a wick is lit, with the tip coming out

through the tiny groove in back, overlooking the cavity in the ram's back.

- To perfume a room, Han people had censers in which they burnt good-smelling incense, like this one, found in the kd Princess' tomb. A filigree d dome enablest the sweet smoke to come out from the many holes. Her censer is in the shape of a magic mountain. Around it are walking the mythical beasts of the #Directions. There is the White Tiger of the West, the Red Phoenix of the South and the Green Dragon of the East. The magic mountain is supported by a figure that is riding a beast.
- From the Prince's tomb were found also a number of weapons, as one might one pate expect to find in a tomb of a Prince. Some of them include an iron knife (158) with a hilt is inlaid with gold cloud designs, a bronze dagger (159), a bronze sword and a halberd (161).
- But surprisingly, they also found in his tomb a set of acupunture needles!

  Here is one made of gold (162) and one of silver (163). Although acupuncture is only beginn to be studied and practiced in America very recently, it is an ancient Chinese medical practice which reaches back several thousand years. No one knows exactly why it works, but we do know that known, It as acupuncture makes the best anaesthesia seliminates headaches, curest asthma, high blood pressure and a variety of internal illnesses. Chinese physicians often combine acupuncture with herbal medicine.
- Perhaps the most beautiful things found in these Han royal tombs of Man-ch'eng are the tiny 3-inch long leopards. Four bronze leopards were found in the Prince's tomb. They are inlaid with gold and silver and have red shiny eyes made of some gem. They are coiled in a restful pose but full of the spring and bounce typical of such felines. Their suppleness of spine, their restful alertness, is fully expressed in these exquisite works.

THE KINGDOM OF TIEN 2nd - 1st centuries B.C.

Showing - Showing

Yunnan Pronvince is in the southwest part of China. From This map shows how farit is from the main center of activity, Ch'ang-an, by the bend of the Yellow River way up in Shensi Province.

The Great Martial Emperor, younger brother of the Prince of Chung-shan, had once given the title of King to a chieftain of thexamainxmimm hill tribes in Yunnan, and the Kingdom of Tien was established.

Between 1955 and 1960, archaeologists have opened some forty royal tombs of the King of Tien and his family, and have unearthed more than 5,000 objects. From the shape and decoration of the objects found there we know that the culture of the Tien people was somewhat different from that of central China, and provides an interesting and lively contrast.

Since the finds belong to the King, so designated by EMperor Wu, we know that the dates must be somewhere within his reign, i.e. between 140 and 87 B.C. They are close in date to the objects found in the Man-ch'eng tombs which date between 113 B.C. and 104 B.C. When we compare the Tien objects with the Man-ch'eng objects, we see the great regional variety that existed around the first century B.C.

Tien people settore their moneds, which were cowrie-shells, in bronze drums' such as this. Many "cash boxes" sweet have been unearthed, all depicting rural life in great detail on the lid. They tell us much of the customs and technology of the time. The lid of this cowrie container shows a an important lady being served fish and fruit by attendants while a dog lies sleepily in the sun. Along the edges there are women weaving on primitive One end of the loom is looms. Them two mends months to have a state of the loom of the loom is looms. Them two mends months managements are made and between the feet, while the other

is held by one hand. The free hand pushes the shuttle back and forth warp (  $\omega$  of ) (?) between the/threads strung around the two ends.

We can tell this is extremely primitive because long before this cowrie container was made, gossamer silks were being produced on large looms

in central China. The Chinese did not have enough commerce and exchange with the peoples of Tien to have taught them Chinese weaving techniques.

Many bronze ornaments found in Tien show a lively sense of motion. Here is one showing a boar about to be devoured by two tigers. He puts up a great struggle. Even when there is no life-death struggle, as in this bronze piece showing buffalo heads and bulls, the forms themselves twist and turn and won't stay still. From such details we can see that the people of Tien had a more mercurial sense of motion in space than peoples in the Yellow River valleys.

Look at the detail of this bronze tube, made around the same time, that was found in the north, in Hopei Province. Look how in the north the animals are depicted in a more straight-fowx forward manner. There is still a great sense of motion, of writhing and interaction---but here it comes from the space and not from the figures themselves. It is the space between the figures that is churning and lively, while the figures themselves are caught in a static pose, with all limbs more or less extended in a straight manner.

Ever since the Martial Emepror Wu-ti campaigned westward to import the tall horses from FErghana in Central Asia, Chinese tombs have been filled with horse figurines made of wood, pottery and bronze. Here are two pottery horses (199-200 in one photo) which were found in 1965 from a Han tomb. They are complete with riders and well over a foot in height. In this same tomb were found a total of four thousand pottery honor guards on their mounts! We can tell from such mass production and quantity-buying that in Han times there must have been workshops that were busy producing such pottery figures night and day, assembly-line fashion. Indeed Han figures often cast in separate pieces and assembled later. And molds

were used so that halves can be quickly poured and dried and assembled before firing in the kilns. This way many pieces will look the same, but this was much faster than sculpting hindreds can be made in a short time, much faster than if each piece were

ERREX individually, sculpted. When

F84

When the order came from a noble family, individual funerary pieces were made, and the higher-ranking the deceased, the larger and costlier the objects,

In1969 archaeologists working in the northwestern province of Kansu discovered an enormous tomb which had belonged to a governor-general of the area in the second century A.D. They found some 30,000 copper coins and over 220 other cultural relics. The most stunning find was a funerary cortege of some 39 horses and horsemen and chariots, entirely made of bronze.

- At the head of the cortege is this elegant celestial horse showin in a galloping pose. We know he is actually flying, because his right hind hoof is resting lightly on top of a flying swallow. The bird s looks back, startled to be overtaken by so majestic a creature. The head and tail are held high, fully expressing the exhuberance and energy of the flying steed.
- The bronze horsemen which follow are wearing leather chaps not unlike this dress those worn by our cowboys. This they learned from the nomads who had for central Asian
- enturies attacked Chinese farmers, raiding their crops on horseback.

  had been riding horses and raiding chinese farms for centuries.
- The nobility of the time rode in chariots like this, light wieght and protected by a parasol. Behind them carts like this (232-234) carried their possessions.
- Han tomb walls were also frequently decorated with murals depicting equestrian pm processions like this one. Here full-bodied horses and riders provide much activity to enliven the after-world of the deceased.

PERIOD OF DISUNITY A.D. 220-589

four

For nearly thour hundred years between the third and seventh centuries A.D.

CHina was in a state of disunity. Various ambitious men rose in rapid autonomy succession and tried to assume total control of their regions and autonomy within the empire. The northern part of China, all along the Yellow River men from the west of Turkic origins assumed control of different regions while in the south different "states" were carved out by various Chinese rulers.

A great deal of cultural exchange accompanies this period. In the south it was a period of reassessment and study, and the calligraphy became the finest of the fine arts, and books of criticism were written, theorizing on painting and poetry, and many men adopted the Taoist attitude of non-involvement and stayed away from the civial service. In the north Buddhism made great headway, offering solace and salvation to the masses who were bewildered by all the warfare and strife. In both case, the people had ceased to look up to the emperor to provide the peace and tranquillity, but had begun to search inwards for ultimate peace of mind.

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In Shansi Province to the north, a series of collossal Buddhist images were carved out of the living rock in the fx now-famous Yunkang Caves.

Under the Bidhi tree, Here is a tiny stone image depicting the Buddha preaching, wander seated on a lotus throne. FLying asparas or celestial beings, and a dragon hover above, while four disciples and two Budhisattvas flank him on both sides.

All through the centuries, however, whether in peace or war, the silk merchants of China enjoyed a brisk trade with countries to the west, along the famous dessert routes now known as the Silk Road, connecting the overland passes to the east, between the capital CH'ang-an/ and Rome to the west. In time the Chinese order came to make silk and damask to roder, in western motifs. COnfronted

256

Bull

figures posed in a pearl rondel are typical Persian motifs, and abound in Chinese trade textiles. This red, white and yellow brocade is typical of 7th century work, showing two confronting birds. From the 8th century there is this funny piece of brocade showing two men standing beside a wine cask, drinking out of Perian drinking horns. Originally such drinking cups were made of real horns. In time they came to be carved out of stone, such of agate, as this one/carved with a ram tilting its head back. This Persian cup was found buried under the home of a T'ang dynasty prince. So we know that white the Persians loved Chinese sliks, the CHinese loved Persian objects, in the cosmopolitan partical T'ang dynasty, especially between the 7th and 8th centuries.

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Before the in 581 A.D., China was unified under the Sui Dynasty, and a new world order was established. First the rulers of the Sui ordered the first pre-planned city in the world built. This was called Tahsing and is beneath present-day Sian, near the ancient Han capital of Ch'ang-an. This magnificent capital was known to ke and mand mand and known to ke known to ke known to k periodx was laid out in grids with 500-foot wide avenues running north to south aligned within a fraction of a degree of the compass. surrounded by a great wall that was over five miles by six miles, the city was walded xaldxarmund; punctuated by imposing gate towers. ONe-ninth of the area, Ex in the center of the northern section, ngrthm, facing south -- an emperor always faces south in CHina-- was the Palace City which held the residential palaces of the Emperor and his family SOuth of that, devided by a broad east-west avenue, was the Administrative City with all the governmental offices. xaroundxxhexexxwoxareas, Forming a U around these two blocks was the city proper with all its residential wards, eastern and western markets, and its many temples of all religions.

To improve communication and transportation between the rice-growing south

W My of

and the wheat-groducing north, the Sui ruler government spentxfixe six years between 605 and 610 digging the Grand Canal. Over seven hundred miles long, it connects the Yangtze River city of Hangchow in the south to Peking in the north.

Anchi BRidge ANother astonishing engeneering feat of the Sui period was the building of the world first oepn-spandrel stone arch bridge. Exx The anchie Bridge is built of limestone blocks, and spans the Hsiao RIVER IN Chao-hsien country in Hopei Province. The total length is more than 150 feet long, while the span of the arch is over 100 feet. The road surface is gently sloped to allow proper drainage. It is also easy on pedestrians and carts alike. At each end of the main arch are two small arches which act as exquisite spillways when the river is high. On the parapet stones there are beauthful carvings, all of which add to the bridge beauty and grace. Some people so admire the bridge that they call it a "long rainbow resting on the Hsiao RIver."

In ceramics, the Chinese had begun to develop a greenish ware which is an early form of the famous celadon ware of later times. By the Sui Dynasty potters began to work on a pure white clay body, and laid the foundation for subsequent white porcelains.

Here is an example of the earliest white porcelain, a figure of a warrior, which was found standing guard at the tomb of Chang Sheng, a Sui general who died in Anyang, Honan province in 595. To provide CHang's spirit with lively music, there was also a orchestra made up of eight lady musicians,.

Like the first unifying dynasty, the Ch'in, the second unifying dynasty Sui was also short-lived, and was superceded by the glorious The Dynasty.

Like the Han which followed the Ch'in, the T'ang was a magnificent, dynamic and long empire, spanning nearly three hundred years between 619 and 907.

## T'ANG

Expanding on the foundations of the Sui capital of Tahsing, the T'ang RESERTE
built the then-center of the world, Ch'ang-an. In this 40-square-mile
dity there lived one million people, in the eighth century. Around its
walls lived another RE million people, mostly farmers who provided the
produced needed within the city walls. Not only CHinese aristocrats and wealthy merchants, but diverse peoples from the west settled in
CH'ang-an, as Europe was engulfed at the time in the Dark Ages. ONe could
stroll along the streets of Ch'ang an, especially past the Market areas,
and hear strains of exotic music for from bagpipes, lutes, harps and cymbals.
The smells from the different regional cuisines must have been intoxicating.

Ch'ang-an in the 8th century was a cosmopolitan, sophisticated urban center something like London and New York today, filled with peoples and works and ways of life from all over the world. From the burial objects as well as from buried treasures excavated from T'ang sites near Ch'ang-an, it would seem that Persian motifs were the most popular, even among the CHinese. The women changed dressed styles with amazing rapidity. SUddenly twin top-knot and were the/plunging neckline were the/plunging neckline were tashionable, with a high bodice, tight long sleeves and flowing smirts and suddenly it was a sack dress which covered a most substantial body, and a pancake hairdo which enhanced facial rotundity.

Moler

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How did the people of Ch'ang-an spend their days? First of all the Emperor of China rose in the early pre-dawn hours to be dressed and to get ready for his daily Morning Audience. At the same time all the government officials and ministers of the realm assembled beyond the gates of the Palace City to await entry. At the stroke of dawn, with the first sun ray, the huge gates swung open and the officials were lead through inner court into the

Take clay and make an elegant T'ang lady like this. When it is hard, bisque it.

Place it in a p warx milk half-gallon carton which is filled with plaster of parix Paris in liquid.

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HELL, ARE THEY SOLID OR HOLLOW. IF HOLLOW HOW COME

rank, and when they are seated, the Emperor would enter from the side and ascend the Dragon Throne. Thus he would begin the day. Many issues of government policy would be discussed, and the Emperor, always the ultimate dicision-maker, listened carefully to all the arguments for or against certain measures. Although the Emperor was an autocrat, that is, his single voice out-ruled any massed opposition, he was usually attentive to the writing opinions of his selected officials. He relied on his enormous government to guide him in all matters.

From the time ince the Martial EMperor Wu=ti established the first beaureaugragy based on civil-service examinations in the 2nd century B.C., Officials of the empires were usually slected from groups of aspiring scholars. It was believed that men must be well educated in history, in literature, in mathematics as well as archery and music, to become good government offi-Now it By now to had been a cials. Itxwaxxaxmxaxtixpractice par for a thousand years that sons of good families spent their youths studying these subjects, and taking the three progressively difficult examinations in order to compete for the THe last examination was held in the capital city under the personal auspices of the Emperor himself. He was always interested in his future ministers and cabinet members. From kke now on the practice of the Imperial Examinations at the capital continued uninterrupted until % the establishment for the Republic in 1911/.

The officials worked hard at their jobs, rising before dawn for the Imperial Audience and the returning aftwerward to the Administrative City to complete their assigned tasks, whether it be the rewording of a proposal, or the drafting of an imperial edict. Emtmthewchadem When the workload was heavy, they would take their meals and sleep in their offices without returning to their homes.

40

In leisure they went hunting, charging through the woods mounted on their tall CEntral Asian steeds, accompanied by cheetahs and falcons, which were then used as retrievers. This was a sport imported from Persia, as was therother favorite pasttime, of polo-playing. Here women too went galloping full speed ahead over hill and dale, jumping over boulders and dodging trees swinging a vicious mallet in hot pursuit of the errant ball. For such strenuous activities, they were usually accompanied by camels that were fully laden with mouth-watering picnics.

Often the rich would build gorgeous mansions in which to display their wealth. Landscaping became an art, and artificial lakes, stone mountains and exotic plants & were installed. A simple air-conditioning device was invented, with water playing on the tiled rooves to keep temperature down.

Here are some gold and silver objects found beneath buried beneath the residente of the Prince of Pin who died in 741. They all reflect Persian influence as well as remarkable workmanship in the art of gold-and silver-smithing. Here is an octagonal cup decorated with lively human figures. (274). On each of the eight facets there is a danking dancer embossed against a background of flowers. On the handle the head of an old man is engraved. He has deep-set eyes, a high nose and a long beard. He is a westerner and not a Chinese.

Going back a thousand years, an ancient form is used in this winged wine-drinking-cup. Whereas the ancient cups have survived in lacquer, this one made in the early 8th century, is silver. Mandarin ducks and water-chestnut flowers are gilded on the outside, and a rosette spray adorns the inside. Throughout, tiny "fish-roe" designs cover the background.

This handsome bowl is made of solid gold and is embossed with lotus≠petals.
Over the embossing there is further decoration in the form of engraved mandarin ducks, parrots, deer, foxes and leaves. They are exquisitely done.

LEt us look at some typical funerary figurines found in T'ang tombs. They are meant to provide the dead with the luxury and favorite things ha had loved in life.

Here are some of the marvellous things found in 1962 in the tomb of the Princess Yung-t'ai who had cied a violent death early in life at the hand of her grandmother who was at the time EMpress Dowager, the famous Wu Tse-ti'ien and the and woman to occupy the imperial throne in the T'ang Dynasty. Above the tomb archaeologists found many large stone lions, stone warriors and ornamental pillars which tell us what T'ang sculpture looked like. Within the tomb, the long shaft leading down into the underground burial chamber covered with mural painting of mythical beasts and attendants. One side chamber was filled with pottery horses and horsemen, many of the grooms being depicted as Central Asians, with their long noses, deep-set eyes and curly beards, like this one (301) which is showing with hands in the posture of holding some reings which have long disintegrated. This pottery figure is not glazed but was painted after being fired. The pigments have been lost through the centuries.

Here are some glazed horses, which appear shiny, which were placed in the Princess' tomb without riders. COmpared to horses made in the Han Dynasty these are very realistic. Here one is stretching his neck out neighing which the other is bending his head, very ix relaxed, grazing on the pasture.

the walls of THe women whom adormed/the Princess' antechamber show us very clearly how women's fashions looked around 706 A.D. when the mural was painted. The one in the far left is dressed in a young man's costume to alleviate the boredom which arises in an all-female enclosure such as a Princess' residence.

Enter!

301

296

300

On the sarcophagus which held the Princess' coffin

more figures of elegant ladies-in-waiting are engraved. This is a rubbing taken from one side and shows them refined and thoughtful, as young companions of a well-bred Princess should be.

In the same year that the Princess Yung-t'ai met her death, her young brother, the Crown Frince Ixx Yi-teh, too, met his end. This is because they had both criticised the policies of their grandmother, the Dowager EMpress Wu Tse-t'ien. The Dowager, however, gave up her power on her deathbed in 705 and her son, the Emperor Chung-tsung regained control of the Throne, and gave his children a lavish burial each in the following year, 706.

In Yi-teh's tomb we find some very large pottery horses, including this one (309) shown with his crenilated mane which rises up in three tufts, the symbol of the Imperial Stable. He stands wminxmwmm about one-amd-ahalf fest tall, with a brown glaze and a green saddle blanket, and has lovely white and green bridle ornaments.

Here is a pair of lovely ladies which are of typical modid-eighth century stature, that is, rather heavy. (314-315). They are covered in the typical 8th century polychrome glaze made of iron, copper and cobalt. They have powdered faces, rouged lips, and a bit of ochre on forehead as well as a false mole at the corner of their mouths, to show us all the make-up tricks of the mid-8th century.

309

310-311

the 10th century was as introverted as Much as the 8th century was extroverted the tenth century was introvert.

In the Northern \_Sung period, China finds itself in a pensive, less expansive mood. It is the golden age for landscape painting and for ceramics

The T'ang invented printing, the Sung invented the movable type.

The T'ang started Buddhist narrative tales, the Sung brought forth the age of the story. The T'ang experimented with white porcelainous bodies, the Sung perfected them.

The T'ang was extrover and noisy, the Sung thoughtful and quiet.

The T'ang emperors favoured warriors, the Sung emperors retired them. The T'ang looked to PErsia, the Sung looked to its own past. Thus we see in the relics from the Sung Dynasty a world that is radiaally different from the xx noisy, excuberant world of T'ang.

Such a quiet and exquisite bowl with lotus flower designs incised lightly into the thin walls cannot have been produced at another age.

NOr could this inctredibly beautiful Buddhist vase (kendi) have been made at any other time, any other place. Both these pieces were found in the base of & a Buddhist pagoda in Hopei Province, buried or consecrated as some sort of offering when the pagoda was first built. They speak eloquently of the quietsit spirit which prevailed in China in the late 10th century in particular, and the Buddhist world in particular.

In the Sung Dynasty, which lasted from 960 to 1279) we witness one of the more beautiful and transcendental periods of Chinese history. In literature, a free verse, the Tz'u, reaches its apogee, Landscape painting is at its peak, a free and liberal philosophy seeks to combine all the good points of all preceding thought systems into neo-Confucianism, and the supreme art of CALLIGRAPHY HAS ITS LAST golden age.

Ceramic kilns blossom all over the empire like flowers in springtime.

They immortalize the names of the villages in which they are situated.

Lung-ch'üan, Tz'u-chou, Yao-chou, to name a few, each produced a type of ceramic ware that is distinctive and of high aesthetic value. Ching-te-cheng in Chiang-hsi Rmaminna province reached the hix height of reknown in the late 10th century and have been producing porcelains of extraordinary quality ever since. Till this very day.

her perfected her medium. ONe of the last innovations came in the 14th century, in the form of the still-famous blue-and-white underglaze decor.

The these porcelains
This is a way in which the pure-white porcelain body of the vessle is contrasted to the colored decoration. Blue is produced with znamin cobalt, red with copper oxide in a reduction kiln, and green with iron oxide in a reduction kiln. The kiln atmosphere is reduced when it is covered near the end of the firing and this cuases smoke to swirl through the kiln.

SMoke consumes all the oxigen in the pigments and iron, naturally borwn is reduced to a light green, and copper, a green pigment, is reduced to red.

Here is one of the earlest EMMANAPHEREXMENANDER examples of the famous blue-and-white porcelains, from the century it was invented in China (369) It is a stunning covered jar that is over one-and-a HALF FEET TALL.

The octagonal body is topped with a lid with It is covered with a white dragon. The lid with a lid with blue is octagonal and covered with a white dragon. The lid was a lion-shaped knob. The body blue is octagonal and covered with a white and-white wave pattern which brings out the four white dragons, seen by frolicking in the waves.

In the 14th century yet another art form comes to the fore in CHina. That is the art of the theatre. Actors the out Beautiful verses were sung and acted out with dancing motions to the accompaniment of flutes and muffled drums, and are acted out in dancing motions. We find this reflected in the funerary objects of the era, when so many people went to their next world accompanied by pottery actors such as these.

The long history of China has been uninterrupted for the last six thousand years. In the exhibition of Archaeological Finds we see some